

Actionable Steps Toward Equity in STEM

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Undergraduate Biology Education Research

Gordon Research Conference

June 26-July, 2021
Bates College
Lewiston, ME

*June 26-27 graduate student
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Land Acknowledgment

UC Berkeley

We recognize that

- UC Berkeley sits on the territory, the ancestral and un-ceded land of the Ohlone people, the successors of the sovereign Verona Band of Alameda County.
- This land was and continues to be of great importance to the Ohlone Tribe and other familial descendants of the Verona Band.
- Every member of the UC Berkeley community has, and continues to benefit from, the use and occupation of this land, since the institution's founding in 1868.
- Consistent with our values of community, inclusion and diversity, we have a responsibility to acknowledge and make visible the university's relationship to Native peoples.
- As members of the Berkeley community, it is vitally important that we not only recognize the history of the land on which we stand, but also, we recognize that the Ohlone people are alive and flourishing members of the Berkeley and broader Bay Area communities today.

Modified excerpts from UCB's Centers for Educational Justice & Community Engagement
<https://cejce.berkeley.edu/ohloneland>

Land Acknowledgment

Penn State University

Pennsylvania State University does NOT have an official statement of land acknowledgment

We should recognize that University Park, PA home of Penn State University's main campus was built on land belonging to the Haudenosaunee, Lenape, Shawnee and Susquehanna peoples.

About Ourselves

Our Personal/Professional
Histories and Connections to this Work

‘Racial Justice’

Racial justice is the systematic fair treatment of people of all races, resulting in equitable opportunities and outcomes for all.

Racial justice — or racial equity — goes beyond “anti-racism.”

It is not just the absence of discrimination and inequities, but also the presence of deliberate systems and supports to achieve and sustain racial equity through proactive and preventative measures.

Racial Justice in Education – Resource Guide

<https://neaedjustice.org/wp-content/uploads/2018/11/Racial-Justice-in-Education.pdf>

'DE&I'

- Diversity = Number
- Equity = How we get from diversity to inclusion
- Inclusion = Feeling

Focus

Fix our Institutions, not our Students

Reconciliation and Reparation

- Requires that individuals and institutions acknowledge and atone for the wrongs they have done
- That they apologize to and ask for forgiveness from survivors of their wrong-doing
- That they resolve never to repeat the wrongs and work to restore their victims to full humanity as fellow citizens
- That they provide payment/compensation/resources to repair the damages resulting from their practices, behaviors, policies, etc.

Workshop Goals

- Challenge/interrogate practices, policies, assumptions and beliefs related to STEM DE&I work
- Raise awareness of ourselves/our surroundings
- Identify ways to address the negative impact of our language, practices, and policies on our students
- No 'Tool Boxes' or 'Answers'
- Instead Conceptual Frameworks and Questions for us to act to address our local DE&I challenges

How We'll Proceed

1. We asked participants to submit 3 terms for each of 3 aspects of our DE&I work below
 - Categorizing and Naming Students
 - Advising, Teaching, Mentoring Students
 - Defining Student Success
2. We compiled the terms submitted by the audience. From the responses we constructed 3 Word Clouds for discussion and questions.
3. For each Word Cloud we'll discuss:
 - Frequently occurring words
 - The impact of those words on our students, staff, and faculty
 - How these words show up and translate into our policies and practices
 - How the words chosen, policies developed impact the behaviors of people in their daily lives
4. Use the 'Q&A' function – for your questions and comments

Our Discussion and Analysis

- Root Cause; ‘Origin Story’ behind the situation
- Bias that underlies and contributes to the situation
- Our Responsibility in the situation
- What we can do in our current Institutional Role
- Resources to help us translate thought into action
- Structural/Institutional Features – facilitate or impede righting the wrong

Word Cloud

Categorizing and Naming Students

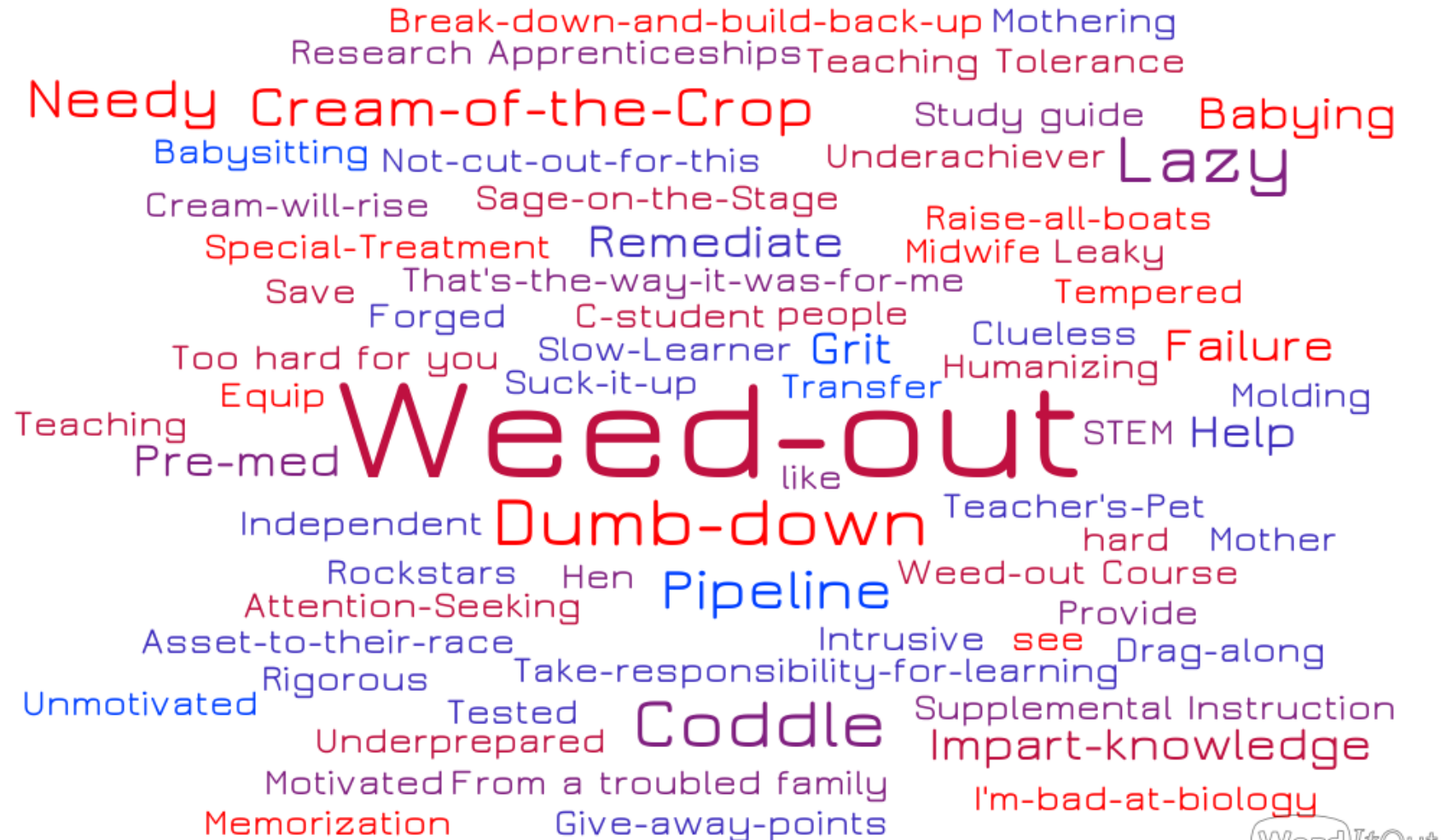


Q?



Word Cloud

Advising, Teaching, Mentoring Students

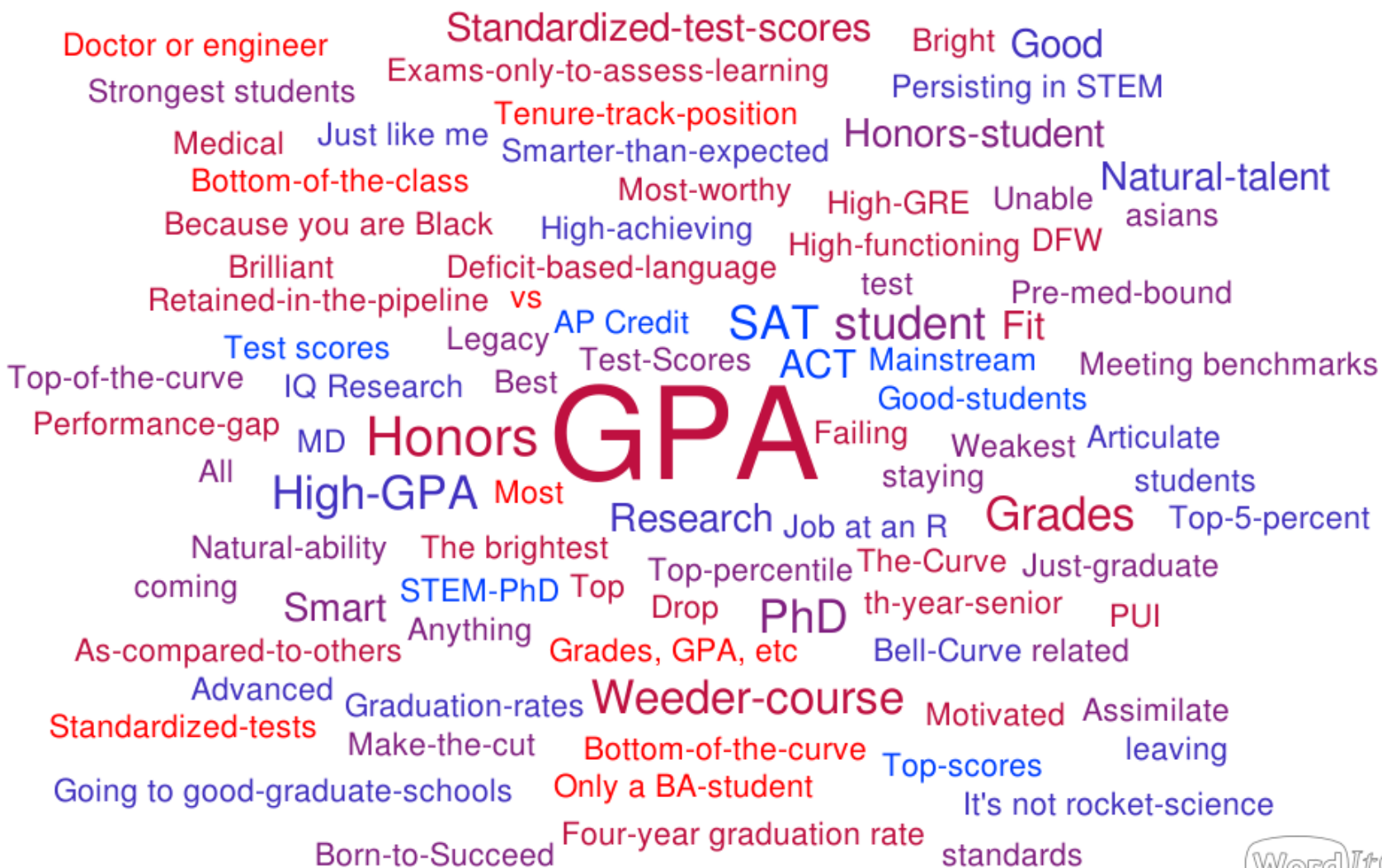


Q?

Break-down-and-build-back-up Mothering
Research Apprenticeships Teaching Tolerance
Needy Cream-of-the-Crop Study guide Babying
Babysitting Not-cut-out-for-this Underachiever Lazy
Cream-will-rise Sage-on-the-Stage Raise-all-boats
Special-Treatment Remediate Midwife Leaky
Save That's-the-way-it-was-for-me Tempered
Forged C-student people Clueless Failure
Too hard for you Slow-Learner Grit Humanizing Molding
Equip Suck-it-up Transfer STEM Help
Teaching Pre-med Weed-out like
Independent Dumb-down Teacher's-Pet hard Mother
Rockstars Hen Pipeline Weed-out Course
Attention-Seeking Provide
Asset-to-their-race Intrusive see Drag-along
Unmotivated Rigorous Take-responsibility-for-learning
Tested Supplemental Instruction
Underprepared Coddle Impart-knowledge
Motivated From a troubled family I'm-bad-at-biology
Memorization Give-away-points



Q?



Next Steps for Us All

As we plan to translate thought into action

Start with

- Definition of 'Success'
- Work Backwards
- Ask - How to measure Progress?

Related to this

- Leverage what's in place
- Think 'Triage'
- Low-hanging/near-term opportunities
- Mid- and long-term opportunities

Inventory

- What you Think
- What you Know
- What you can Prove/have Evidence

Associate yourself

- 'Critical Friends'

Remember

- 'The Why' as we shoulder 'The Cost'
- Evidence = Necessary/not Sufficient
- 'Marathon not a sprint'

Q?

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Some Relevant Frameworks

Appendix 1

Solutions

- ‘Fix’
- ‘Bad Apples’ and ‘Better Students’
- ‘Programs’/Counter-spaces
- ‘Best Practices’

Institutional Characteristics

- Fairness and Merit
- Mindset
- Responsibility
- Quantitative v. Qualitative
- Implicit Bias

- Stereotype Threat
- Gaslighting
- Erasure/Silencing
- Competition
- ‘Expert’/Institutional Role

Actions

- Truth and Reconciliation
- Reparation – acknowledgement, apology, and amends
- Rewards, Accountability, Consequences

References & Resources

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